



Division of The BOC Group, Inc.

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# MATERIAL SAFETY DATA SHEET

POR SF  
11.3.125.101  
11/01/86

Welding Consumables  
and Related Products  
Conforms to OSHA 1910.1200

## IDENTIFICATION

PRODUCT NAME: Argoshield Gas #1, #2, #5

98/2

CHEMICAL FAMILY: Gas Mixture

SYNONYMS: Argon in Oxygen Mixtures

DOT HAZARD CLASS: Nonflammable  
gas

CAS NUMBER: Argon: 7440-37-1  
Oxygen: 7782-44-7

DOT IDENTIFICATION NUMBER: UN 1956

FORMULA: Ar: 70-99%  
O<sub>2</sub>: 1-30%

CHEMTREC: 800-424-9300

## HEALTH HAZARD DATA

### TIME WEIGHTED AVERAGE EXPOSURE LIMIT:

No TWA/PEL established. These mixtures when containing less than 18 molar % oxygen would act as simple asphyxiants at atmospheric pressure.

### SYMPTOMS OF EXPOSURE:

Effects of exposure to high concentrations so as to displace the oxygen in the air necessary for life are headache, dizziness, labored breathing and eventual unconsciousness.

### TOXICOLOGICAL PROPERTIES:

Mixtures with less than 18 molar % oxygen are inactive biologically and essentially nontoxic; therefore, the major property is the exclusion of an adequate supply of oxygen to the lungs.

### RECOMMENDED FIRST AID TREATMENT:

PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO MIXTURES CONTAINING LESS THAN 18 MOLAR % OXYGEN. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

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Inhalation: Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given mouth-to-mouth resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

Hazardous Mixtures of Other Liquids, Solids, or Gases:

None

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PHYSICAL DATA

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Boiling Point: N/A, Gas Mixture

Liquid Density @ Boiling Point: N/A, Gas Mixture

Vapor Pressure : N/A, Gas Mixture

Specific Gravity @ 70°F, 1 atm (Air=1): 1.0

Solubility in Water: Slightly

Freezing Point: N/A, Gas Mixture

Appearance and Odor: Colorless, and odorless gas.

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FIRE/EXPLOSION HAZARDS DATA

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Flash Point (Method Used): N/A

Auto Ignition Temperature: N/A

LEL: N/A

UEL: N/A

Extinguishing Media: Nonflammable, inert gas

Electrical Classification: Nonhazardous

Special Fire Fighting Procedures: N/A

Unusual Fire and Explosion Hazards: N/A

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REACTIVITY DATA

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Stability: Stable

Incompatibility (Materials to Avoid): None

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur

Conditions to Avoid: None

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## SPILL OR LEAK PROCEDURES

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### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in container or container valve, contact CHEMTREC for emergency assistance or your closest Airco location.

### Waste Disposal Method:

Do not attempt to dispose of waste or unused quantities. Return in the shipping container properly labeled, and valve protection cap in place to Airco for proper disposal.

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## SPECIAL PROTECTION INFORMATION

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Respiratory Protection: Positive pressure air line with mask or self-contained breathing apparatus should be available for emergency use.

Ventilation: See Local Exhaust

Local Exhaust: To prevent accumulation of high concentrations so as to reduce the oxygen level in the air to less than 18 molar percent.

Special: None

Mechanical (Gen.): None

Other: None

Protective Gloves: Any material

Eye Protection: Safety goggles or glasses

Other Protective Equipment: Safety shoes

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## SPECIAL PRECAUTIONS

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### Special Labeling Information:

DOT Shipping Name: Compressed Gas, N.O.S.

DOT Hazard Class: Nonflammable gas

DOT Shipping Label: Nonflammable gas

I.D. No.: UN 1956

### Special Handling Recommendations:

Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to low pressure (<3,000 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate or product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder.

For additional storage recommendations, consult Compressed Gas Association Pamphlets P-1.

### Special Storage Recommendations:

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 130°F (54°C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders being stored for excessive periods of time.

For additional storage recommendations, consult Compressed Gas Association Pamphlets P-1.

### Special Packaging Recommendations:

These mixtures are noncorrosive and may be used with any common structural material.

### Other Recommendations or Precautions:

Compressed gas cylinders should not be refilled except by qualified producers of a compressed gas. Shipment of a compressed gas cylinder which has not been filled by the owner or with his (written) consent is a violation of Federal Law (49CFR). Also see CGA Safety Bulletin SB-7.